

ABSTRACT

Semiconductor devices and methods for fabricating a semiconductor devices are disclosed. A disclosed method comprises: forming a first gate electrode functioning as a flash memory; forming first spacers on sidewalls of the first gate electrode; forming a second gate electrode functioning as a normal gate electrode; forming a source/drain region with a shallow junction by performing a first ion implantation process using at least one of the first spacers as a mask; forming second spacers on a sidewall of the first spacer and on sidewalls of the second gate electrode; forming a source/drain region with a deep junction by performing a second ion implantation process using the second spacers as a mask.